

**WHAT IS CLAIMED IS:**

1. A communication system for supporting multiple languages for a mobile communication terminal, the system comprising:
  - 5 a mobile communication network;
  - a multiple language contents provider server (MLCPS) connected to the mobile communication network and including multiple language contents; and
  - a mobile communication terminal wirelessly connected to the mobile communication network;
- 10 wherein the mobile communication terminal connects to the MLCPS through the mobile communication network, transmits language package request data to the MLCPS according to a request of a user, receives language package information provided from the MLCPS, and displays menus and messages on a display window of the mobile communication terminal in a language selected by
- 15 the user using the received language package information ; and
- wherein the MLCPS forms a corresponding language package in response to reception of the language package request data and transmits the language package to the mobile communication terminal through the mobile communication network.
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2. The communication system of claim 1, wherein the language package request data comprises a terminal model name, a software version, a string set version, and a font set version.
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3. The communication system of claim 2, wherein the language package request data further comprises font types and character codes that are supported by the mobile communication terminal.
4. A method of supporting multiple languages for a mobile
- 30 communication terminal in a communication system including a mobile

communication network, a multiple language contents provider server (MLCPS) connected to the mobile communication network and including multiple language contents, and the mobile communication terminal wirelessly connected to the mobile communication network, the method comprising the steps of:

5       transmitting language package request data including at least one string set version and one font set version to the MLCPS through the mobile communication network according to a language request of a user of the mobile communication terminal;

          when language package information provided from the MLCPS is  
10       downloaded, dividing the downloaded language package information into a string set and a font set corresponding to a language selected by the user;

          managing the string set and the font set; and

          displaying menus and messages on a terminal display in the language selected by the user using the managed string set and font set.

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5.       The method of claim 4, wherein the language package comprises a header including string header information and font header information, a string including string offset information and real strings, and a font including font general information, glyph offset information, and glyphs.

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6.       The method of claim 5, wherein the header comprises a string header including the string header information and a font header including the font header information.

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7.       The method of claim 6, wherein the string header comprises:

          a string set version field in which string set version information is recorded;

          a total package size field in which a total size of a currently downloaded language package is recorded;

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          a string set name field in which a name of a string set is recorded;

a language code field in which a characteristic code supported by a current string set is recorded;

a character code type field in which character code type information represented by the current string is recorded;

5 a display order field in which information on a direction where characters are developed is recorded;

a string count field, in which the number of strings is recorded;

a string set size field in which a string set size obtained by subtracting a font header and a font from an entire language package is recorded; and

10 a font header offset field in which information on a position where a font starts in the entire language package is recorded.

8. The method of claim 6, wherein the font header comprises:

a font set version field in which a font set version of the language  
15 package is recorded;

a font set size field in which a size of the font including the font header is recorded;

a language code field in which a characteristic code of a language supported by the font set of the language package is recorded;

20 a font type field in which information representing whether the font is a bit map or a vector is recorded;

a font count field in which number information representing a kind by each size is recorded when the font type is a bit map font; and

a font set name field in which the name of the font set is recorded.

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9. The method of claim 6, wherein the string comprises a string offset field in which the string offset information is recorded, and a string field in which the real strings are recorded.

30 10. The method of claim 9, wherein the string offset field comprises

a plurality of string offset fields, wherein positions where real strings exist are recorded on the respective string offset fields.

11. The method of claim 9, wherein the string field comprises a  
5 plurality of string fields, wherein real strings used for the mobile communication terminal are recorded on the respective string fields.

12. The method of claim 6, wherein the font comprises a font  
general information field including the font general information, a glyph offset  
10 field including the glyph offset information, and a glyph field including the glyphs.

13. The method of claim 12, wherein the font general information  
field comprises:  
15 a font k X size field in which a horizontal size of a font k ( $k$ =a natural number) is recorded;  
a font k Y size field in which a vertical size of a font k is recorded;  
a glyph k count field in which a number of characters a font set k has is recorded;  
20 a start character code field and an end character code field used when a character code set is desired to be partially used; and  
a start offset field of a glyph k offset table in which start offset information of a glyph k offset table is recorded.

25 14. The method of claim 12, wherein the glyph offset field comprises a plurality of glyph offset fields for glyph k, wherein positions where real glyphs exist are recorded on the respective glyph k offset fields.

15. The method of claim 12, wherein the glyph field comprises a  
30 plurality of glyph fields, wherein real glyphs are recorded on the respective glyph

fields.

16. A method of supporting multiple languages for a mobile communication terminal in a communication system including a mobile communication network, a multiple language contents provider server (MLCPS) 5 connected to the mobile communication network and including multiple language contents, and the mobile communication terminal wirelessly connected to the mobile communication network, the method comprising the steps of:

transmitting language package request data including at least one string 10 set version and one font set version to the MLCPS through the mobile communication network according to language request of a user of the mobile communication terminal;

when language package information provided from the MLCPS is downloaded, comparing the string set version and the language code of the 15 language package with previously stored string set version and language code, selectively registering a string set pointer corresponding to a language code in a language table of a memory, and selectively storing downloaded strings in a file storage region of a memory designated by a string set pointer corresponding to the language code;

20 determining whether a font set exists in the language package; and

when the font set exists in the language package, comparing a font set version of the language package with a previously stored font set version, selectively registering a font set pointer corresponding to a language code in a language table of a memory, and selectively storing downloaded fonts in a file 25 storage region of a memory designated by a font set pointer corresponding to the language code.

17. The method of claim 16, further comprising the step of displaying menus and messages on a terminal display in a language and a font 30 selected by a user using strings and fonts stored in a file storage region of the

memory.

18. A recording medium readable in a computer comprising:  
 a header including string header information and font header information,  
 5 a string including string offset information and real strings; and  
 a font including font general information, glyph offset information and  
 glyphs.

19. The recording medium of claim 18, wherein the header  
 10 comprises a string header including the string header information and a font  
 header including the font header information.

20. The recording medium of claim 19, wherein the string header  
 comprises:  
 15 a string set version field in which string set version information is  
 recorded;  
 a total package size field in which the total size of a currently  
 downloaded language package is recorded;  
 a string set name field in which a name of a string set is recorded;  
 20 a language code field in which a characteristic code supported by a  
 current string set is recorded;  
 a character code type field in which character code type information  
 represented by the current string is recorded;  
 a display order field in which information on a direction, in which  
 25 characters are developed, is recorded;  
 a string count field in which a number of strings is recorded;  
 a string set size field in which a string set size obtained by subtracting a  
 font header and a font from an entire language package is recorded; and  
 a font header offset field in which information on a position where a font  
 30 starts in the entire language package is recorded.

21. The recording medium of claim 19, wherein the font header comprises:

a font set version field in which the font set version of the language  
5 package is recorded;

a font set size field in which a size of a font including a font header is recorded;

a language code field in which a characteristic code of a language supported by the font set of the language package is recorded;

10 a font type field in which information representing whether a font is a bit map or a vector is recorded;

a font count field in which number information representing a kind by each size is recorded when the font type is a bit map font; and

a font set name field in which a name of a font set is recorded.

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22. The recording medium of claim 18, wherein the string comprises a string offset field in which the string offset information is recorded, and a string field, in which the real strings are recorded.

20 23. The recording medium of claim 22, wherein the string offset field comprises a plurality of string offset fields, wherein positions where real strings exist are recorded on the respective string offset fields.

24. The recording medium of claim 22, wherein the string field  
25 comprises a plurality of string fields, wherein real strings used for the mobile communication terminal are recorded on the respective string fields.

25. The recording medium of claim 18, wherein the font comprises a font general information field including the font general information, a glyph  
30 offset field including the glyph offset information, and a glyph field including the

glyphs.

26. The recording medium of claim 25, wherein the font general information field comprises:

5 a font k X size field in which a horizontal size of a font k (k=a natural number) is recorded;

a font k Y size field in which a vertical size of a font k is recorded;

a glyph k count field in which the number of characters the font set k has is recorded;

10 a start character code field and an end character code field used when a character code set is desired to be partially used; and

a start offset field of a glyph k offset table in which start offset information of the glyph k offset table is recorded.

15 27. The recording medium of claim 25, wherein the glyph offset field comprises a plurality of glyph offset fields for glyph k, wherein positions where real glyphs exist are recorded on the respective glyph k offset fields.

28. The recording medium of claim 25, wherein the glyph field  
20 comprises a plurality of glyph fields, wherein real glyphs are recorded on the respective glyph fields.

29. A system of supporting multiple languages for a mobile communication terminal in a communication system comprising

25 a mobile communication network;

a multiple language contents provider server (MLCPS) connected to the mobile communication network and including multiple language contents;

a multiple language service terminal connected to the MLCPS through the mobile communication network, for transmitting language package request  
30 data to the MLCPS according to a request of a user, receiving language package

information provided from the MLCPS, and storing the received language package information; and

a mobile communication terminal wirelessly connected to the mobile communication network, receiving the language package information from the  
5 MLCPS and displaying menus and messages on a display window of the mobile communication terminal in a language selected by the user; and

wherein the MLCPS forms a corresponding language package in response to reception of the language package request data and transmits the language package to the mobile communication terminal through the mobile  
10 communication network.